PARORNIX CARPINELLA (FREY, 1863) A DISTINCT SPECIES FROM *P. FAGIVORA* (FREY, 1861) (LEP., GRACILLARIIDAE)

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Although Frey (1863) had described *Parornix carpinella* as a distinct species feeding on hornbeam (*Carpinus betulus*), Stainton (1864) listed both hornbeam and beech (*Fagus sylvatica*) as the foodplants of *P. fagivora*. He tells us that at the time of writing he had seen only the first part of Frey's paper, but he was probably aware of the species it had covered. He would also have known that his friend and correspondent Charles Healy had recently found a *Parornix* larva feeding on hornbeam in Epping Forest, although he had not reared the adult (Emmet, 1981); Stainton expressed his belief that no adult *Parornix* had been reared in Britain from beech either. To the best of my knowledge, he never subsequently referred to *P. carpinella* as a valid species which might occur in Britain and the presence of a hornbeam-feeding *Parornix* in this country was either forgotten or overlooked by his successors. Neither Meyrick (1928) nor Kloet & Hincks (1972) mentions the name *carpinella* and the former does not give hornbeam as a foodplant of any species in the genus.

Parornix spp. are virtually indistinguishable from the facies of the adults and confusion has reigned over the number of species as is shown by the synonymy in Kloet & Hincks. Herrich-Schäffer (1855) was in fact the first writer to describe *P. carpinella* but he did so under the impression that it was the same as *P. devoniella* (Stainton). The failure to recognise the common *P. finitimella* as British until Pierce (1917) added it to our list almost by accident is well known.

When in about 1970 the late D. W. H. Ffennell reared a *Parornix* from hornbeam, the general expectation was that *P. carpinella* would be added to the British list. However, his moths were dissected at BM(NH) and deemed to be conspecific with *P. fagivora*. Subsequent publications in this country (Emmet, [1979]; 1985) followed this synonymy, though with guarded reservations.

After the publication of MBGBI Vol. 2, the Swedish entolomogist Ingvar Svensson (*in litt.*) expressed surprise at this interpretation. He enclosed figures of the female genitalia of *P. fagivora* and *P. carpinella* showing clearly marked differences, but added that he had not been able to study the male genitalia through lack of material. Knowing that Mr. E. C. Pelham-Clinton had a female *Parornix* reared from hornbeam and already dissected, I sent him the figures and he promptly confirmed the distinction.

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Both species appear to be strangely difficult to rear in captivity and almost all the specimens labelled *P. fagivora* in BM(NH) were captured as adults; this applies, for example, to the long series in the L. T. Ford collection. When I collected larvae from a beech-wood in Kent for my description of the early stages of *P. fagivora* in MBGBI Vol. 2, no adult emerged. The species is extremely local and south Hampshire seems to be the only region in which it is at all plentiful (J. R. Langmaid, *pers. comm.*). *P. carpinella* is even more local and according to present information is reliably recorded only from Kent and Essex. There are probably fewer than ten reared specimens in Britain and these are dispersed over almost as many collections. Larvae are hard to find because they occur at extremely low density on a foodplant that is widespread and sometimes grown as a monoculture in the woods of south-eastern England. Hornbeam occurs naturally only in the south-east and *Parornix* would be unlikely to be introduced to new areas with the plantation of saplings, as happens with *Phyllonorycter*. The latter pupate in their mines and as saplings retain their leaves in winter, they would travel with the tree. *Parornix* pupate in leaf-litter and would not be so transported.

The conclusion is that there is insufficient bred British material of either species for comparative study. I cannot yet give any character by which the wing pattern of *P. carpinella* may be distinguished from that of *P. fagivora*: there may be none. In the female genitalia, *P. carpinella* has the ostium simple, the upper part of the ductus immaculate, the lower part with coarse spines and the upper part of the bursa with fine spines. In *P. fagivora* the ostium is elaborate, the upper and lower parts of the ductus have minute spines and its central part and the upper part of the bursa are immaculate. There is no information about the male genitalia so far. It is not yet possible to explain how the mistake arose at BM(NH). Possibly only the male genitalia were examined and differences may be obscure in that sex. Alternatively, the slides purporting to be *P. fagivora* may in fact have been *P. carpinella*.

The purpose of publishing a paper which contains so much incomplete information is to invite the help of microlepidopterists living in the south-east of England. The requirements are genitalia drawings of both sexes of both species made from confirmed reared material, a comparison of the early stages to see if there are any differences other than foodplant and the study of a sufficiently long series of the imagines of each species to search for a distinctive character which could be used in a dichotomous key.

P. carpinella should be placed immediately after *P. fagivora* and given the Log Book number 302a. The larva of *P. fagivora* is to be found in July, and again in September. It may be that *P. carpinella* is similarly bivoltine in this country.

I wish to thank Ingvar Svensson for supplying the information

and genitalia figures which led to the recognition of the distinction between *P. carpinella* and *P. fagivora* and to E. C. Pelham-Clinton for confirming that the former occurs in Britain.

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THAUMATOPIA PROCESSIONEA L. (OAK PROCESSIONARY MOTH) AND LYMANTRIA DISPAR L. (GYPSY MOTH) ON JERSEY, 1984 – A single male specimen of *T. processionea* was caught in the Rothamsted Insect Survey light trap which operates on the Island of Jersey on the night of 20/21-viii-1984. This is only the third British record for this species, two of which came from Rothamsted traps. (See Riley, A.M. *T. processionea* L. on Guernsey. *Ent. Rec.* **97**: 110-111).

A single specimen, again a male, of *L. dispar* was caught in the same trap on 31-vii/1-viii-1984. This is the seventh Channel Island record for this species (Long, *Pers. Comm.),* two of which are from Rothamsted traps; another male was taken at our Guernsey site on 17/18-viii-1971.

Thanks are extended to Mr. G. Thomas for operating our Jersey trap and to Mr. R. Long of the Societe Jersiaise for his comments on these species. ADRIAN M. RILEY, Entomology Department, Rothamsted Experimental Station, Harpenden, Hertfordshire.